



US006044369A

United States Patent [19]

Black

[11] **Patent Number:** 6,044,369
 [45] **Date of Patent:** Mar. 28, 2000

[54] **HASH TABLE CALL ROUTER FOR WIDELY VARYING FUNCTION INTERFACES**

[75] **Inventor:** Ron L. Black, Austin, Tex.

[73] **Assignee:** Dell USA, L.P., Round Rock, Tex.

[21] **Appl. No.:** 09/007,010

[22] **Filed:** Jan. 14, 1998

[51] **Int. Cl.⁷** G06F 9/00

[52] **U.S. Cl.** 707/4; 707/104

[58] **Field of Search** 707/1-205

[56] References Cited

U.S. PATENT DOCUMENTS

5,546,577	8/1996	Marlin et al.	
5,682,535	10/1997	Knudsen	707/1
5,768,592	6/1998	Chang	707/100
5,862,338	1/1999	Walker et al.	707/100
5,878,420	3/1999	De La Salle	707/10
5,896,321	4/1999	Miller et al.	365/189.01

OTHER PUBLICATIONS

Publication, Desktop Management Taskforce, Mar. 29, 1996, manual relating to Desktop Management Interface Groups.

Primary Examiner—Hosain T. Alam

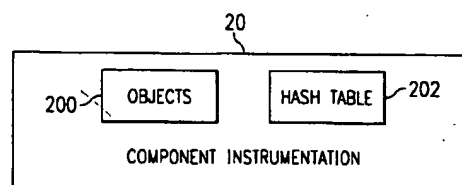
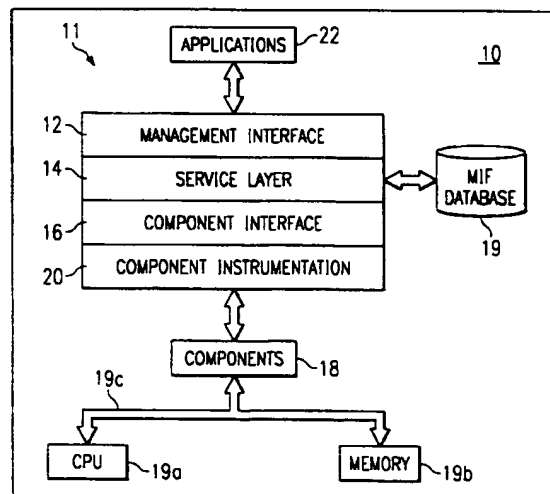
Assistant Examiner—John G. Mills

Attorney, Agent, or Firm—Haynes and Boone, L.L.P.

[57] ABSTRACT

A technique for retrieving data residing on a data server platform using object-oriented programming techniques in a Desktop Management Interface ("DMI") environment is disclosed. In one embodiment, a data inquiry Router object brings together the many functions and data sources required to service client requests into a cohesive structure. Based on the concept that all data requests can be visualized as the instantiation of a class derived from a hyper-generic base class, a symbiotic structure is be generated that encapsulates the basic client-server interface functionality along with the otherwise unrelated information gathering techniques required to satisfy the request. The base class and all classes derived from it are accessed through an open-addressed hash table based request Router object that bores down to the appropriate piece of data acquisition code and performs query validation and return the requested data structure in the form desired.

20 Claims, 2 Drawing Sheets



DOCUMENT-IDENTIFIER: US 6044369 A

TITLE: Hash table call router for widely varying function interfaces

----- KWIC -----

BSPR:

The CI 16 is used-by-component-vendors-to-describe-access-to-management information-and-to-enable-a-component-to-be-managed. The CI 16 shields vendors from the complexity of encoding styles and management registration information for the components. The MI 12 is used by applications installed on of the computer system 10, collectively illustrated in FIG. 1 as applications 22, to enable the applications to manage components 18. The MI 12 shields application vendors from having to understand the different mechanisms used to obtain management information from elements within the computer system 10.

BSPR:

.MIF files describe components and their attributes. Each component manufacturer provides a MIF file that describes the characteristics of the component that can be managed. A component's MIF file is installed into the MIF database 19 when the component is installed in the computer system 10. The component makes itself known to the computer system 10 via the MIF database 19.

CCOR:

707/4

CCXR:

707/104.1